



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 39365-2020

**Leather - Physical and mechanical tests - Determination of dry
heat resistance**

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Foreword

This Standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This Standard uses the redrafting method to modify and adopt ISO 17227:2002

"Leather - Physical and mechanical tests - Determination of dry heat resistance of leather".

Compared with ISO 17227:2002, the structural adjustments of this Standard are as follows:

-- Adjust 7.4 of ISO 17227:2002 to the note of 7.3; merge 7.5 of ISO

17227:2002 into 7.3, and move the following chapters forward;

-- Merge 8.3 of ISO 17227:2002 into 8.2.

The technical differences between this Standard and ISO 17227:2002 and the reasons are as follows:

-- With regard to the normative references, this Standard makes technical adjustments to adapt to the technical conditions of China. The adjustments are concentrated in Chapter 2 "Normative references". The specific adjustments are as follows:

* Use GB/T 39364 which modifies and adopts international standards to

replace ISO 2418 (see 5.1);

* Use QB/T 2707 which modifies and adopts international standards to

replace ISO 2419 (see 4.5, 5.3 and 7.3);

-- Modify the description of the principle (see Chapter 3; Chapter 3 of ISO 17227:2002);

-- Modify the accuracy requirements of the vernier caliper (see 4.2; 4.2 of ISO 17227:2002);

-- Delete the example of glazed-pottery tripod (see 4.3 of ISO 17227:2002);

-- Add provisions for sampling of non-standard parts (see 5.1);

-- Add regulations on the placement mode of the sample in the oven (see 7.2);

-- Modify the adjustment time of the sample after the test (see 7.3; 7.5 of ISO 17227:2002);

Leather - Physical and mechanical tests -

Determination of dry heat resistance

1 Scope

This Standard specifies the test method of dry heat resistance of leather.

This Standard applies to the determination of dry heat resistance of various types of leather.

2 Normative references

The following documents are indispensable for the application of this document.

For dated references, only the dated version applies to this document. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 39364, Leather - Chemical, physical, mechanical and fastness tests - Sampling location (GB/T 39364-2020, ISO 2418:2017, MOD)

QB/T 2707, Leather - Physical and mechanical tests - Sample preparation and conditioning (QB/T 2707-2018, ISO 2419:2012, MOD);

3 Principle

Place the air-conditioned sample in an oven for heating; then, test the area shrinkage of the sample; record other changes of the sample.

4.1 Oven, of which the temperature at the center can be controlled at $(150\pm 5)^\circ\text{C}$, $(200\pm 5)^\circ\text{C}$ and $(250\pm 5)^\circ\text{C}$ respectively.

4.3 Bracket, which is used to support the sample when it is heated in the oven, so as to minimize the contact between the sample and the oven, such as a grid.

6.1 Oven temperature

Select the oven temperature from the following three temperatures: $(150\pm 5)^\circ\text{C}$, $(200\pm 5)^\circ\text{C}$ and $(250\pm 5)^\circ\text{C}$.

6.2 Test time

Select the test time from the following three times: (15 ± 0.5) min, (30 ± 0.5) min, (60 ± 0.5) min.

7.1 Use a vernier caliper (4.2) to respectively measure the distance between AB and CD on each sample; then, calculate the arithmetic average value, to the nearest 0.1 mm. Measure the distance between AC and BD in the same way; calculate the arithmetic average.

7.2 Preheat the oven (4.1) to a certain temperature that is specified in 6.1; place the sample grain face up on the bracket (4.3) at the center of the oven.

7.3 After heating to a certain time that is specified in 6.2, take out the sample; readjust the sample for 24 h in accordance with the provisions of QB/T 2707.

Note: According to the needs, select another oven temperature in 6.1 and another test times in 6.2; use the newly prepared sample to repeat the operations of 7.2 and 7.3 for the test.

7.4 Use the vernier caliper (4.2) to measure the distances of AB, CD, AC and

BD again; respectively calculate their arithmetic averages according to the provisions of 7.1.

Note 1: The dry heat resistance test at 250°C is an extremely strict test for leather. It should be noted that the leather (especially the leather with higher oil content) may be burned during the test.

Note 2: The leather can volatilize and release gas under the test conditions that are specified in 6.1 and 6.2. In order to avoid damage to the operator, which is caused by the released gas, the test should be carried out in a well-ventilated place.

7.5 Record any other obvious changes of the sample, such as sample distortion, sample carbonization, changes in softness.

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